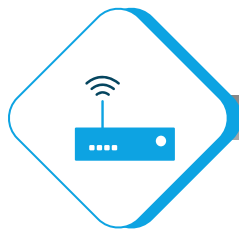




Very Small Aperture Terminal (VSAT)

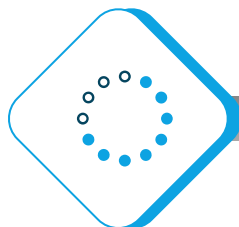
What is Very Small Aperture Terminal (VSAT)?



VSAT is a **satellite-based communication** system that uses small dish antennas to provide connectivity



Operates over **GEO satellites** using high-capacity C, Ku-or Ka-band signals, delivering internet, voice, & data



Self-contained, satellite-linked systems with no dependency on terrestrial backbone, tower infrastructure, or last-mile fiber



Offers **reliable, quick connectivity** with download speeds up to 100 Mbps+ & upload of 10 Mbps 10+

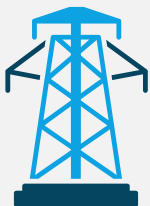


Suitable for **greenfield, mobile** or **temporary** applications, in **remote locations** with unreliable connectivity

VSAT for Business

Why does your business need Very Small Aperture Terminal (VSAT)? (1/2)

1



Guaranteed Uptime & Remote Reach

- Always on, high availability connectivity in remote, rugged, or disaster-prone regions
- Enables **critical communication links** where terrestrial & mobile network is unreliable

2



Rapid Deployment & Scalable Architecture

- Quick installation independent of fiber/cellular footprint; ideal for urgent connectivity setups
- Supports **modular scaling** from single-site to nationwide footprints via satellite beams

Why does your business need Very Small Aperture Terminal (VSAT)? (2/2)

VSAT for Business

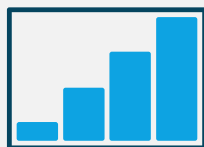
3



Secure & Customizable Enterprise Networks

- Enables private, encrypted connectivity via MPLS, VPN, GRE tunneling or IPsec based protocols
- Custom bandwidth & dedicated capacity to ensure traffic isolation & business grade QoS

4



Bandwidth Flexibility & Application Support

- Dedicated or pooled bandwidth tailored to enterprise needs - from 4 kbps to multi-Mbps
- Works across IPv4, IPv6 protocol and integrates into existing WAN infrastructure

The BSNL Advantage: Scale, Trust and Service

Over
₹5,000 Cr
in enterprise
revenue

Over
61,000
Enterprise
branches under
the Platinum
category alone

- 1 Known for Trust and transparent (1:1) billing
- 2 Reliable connectivity partner offering resilient network



Clients



Why BSNL VSAT?



BSNL is a **100% Government of India-owned** telecom company with a decades-long track record



BSNL is the **first VSAT service provider** in India to use High Throughput Satellite, providing pan-India connectivity



Pan-India **Ka- & Ku- band coverage** using 16 spot beams, offering high-speed satellite connectivity with smaller, cost-efficient terminals



Redundancy ensured on BSNL Optical gigabit super-highways

Salient features of VSAT



Compatible with all IP (v.4 & v.6) protocols



Shared & **customised bandwidth** per customers requirements



Quick network deployment including inaccessible/remote areas



In built GRE Tunneling allowing **secure** and **efficient integration** with core network



Transparent to IPsec Protocols

BSNL VSAT Terminal features



Maximum Trans/Receive Data up to 100 Mbps with 10/100 Mbps Base-T Ethernet interface



VoIP telephony with SIP Phones



Power consumption: 30W (AC input power)

Compact Indoor Unit (IDU)



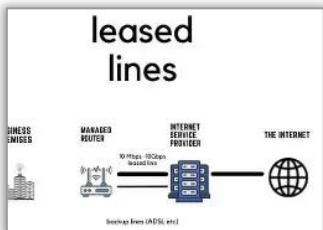
Occupies very little space; Connected to VSAT antenna through RG-6 cable of maximum 30m length

Outdoor Unit (ODU)



Antenna (1.2m, 1.8m, and 2.4m), Low Noise Block (LNB), Block Up Converter (BUC), and feeder assembly

BSNL offers the following services in VSAT



Leased lines through VSAT on IP platforms: 4kpbs onwards



High speed broadband internet



Voice telephony, video conferencing & video streaming



DVB-S2X Enabled



VPN Networking



Facsimile



Create VPNs with VSAT Network, MLLN nodes, MPLS nodes of BSNL



Interworks with existing BSNL Internet, MPLS & MLLN



Marginal additional investment with existing BSNL MPLS, MLLN